

- 14 -

CLAIMS

1. Use of perfluoropolyether phosphates as stabilizing agents for polyphenols in cosmetic and/or dermatological compositions for topical application.

- 5 2. Use according to claim 1, wherein said perfluoropolyether phosphates have the general formula (I):



wherein

$x = 1$ or 2 ;

- 10 R_1 and R_2 are independently selected between H and CH_3 ;

n is an integer between 1 and 50, preferably 1-6;

R_f is a perfluoropolyether chain with a number average molecular weight between 400 and 1800, preferably 500-1300, comprising repeating units selected from the following:

- 15 a) $-(C_3F_6O)-$
 b) $-(CF_2CF_2O)-$
 c) $-(CFL_0O)-$, wherein $L_0 = -F, -CF_3$;
 d) $-CF_2(CF_2)_yCF_2O-$, wherein $y = 1$ or 2 ;
 e) $-CH_2CF_2CF_2O-$,

- 20 and wherein, when $x = 1$, an end group is a perfluoroalkyl selected from CF_3O , C_2F_5O , C_3F_7O .

3. Use according to claim 2, wherein R_f has one of the following structures:

- 1) $-(CF_2O)_a-(CF_2CF_2O)_b-$
 25 wherein b/a lies between 0.3 and 10 and a is an integer different from 0;
 2) $-(CF_2-(CF_2)_y-CF_2O)_b-$

- 15 -

wherein $y = 1$ or 2 ;

3) $-(C_3F_6O)_r-(C_2F_4O)_b-(CFL_0O)_t-$,

wherein $r/b = 0.5-2.0$, $(r+b)/t = 10-30$, b and t are integers different from 0;

5 4) $-(OC_3F_6)_r-(CFL_0O)_t-OCF_2-R'_f-CF_2O-(C_3F_6O)_r-(CFL_0O)_t-$

5) $-(CF_2CF_2CH_2O)_q-R'_f-O-(CH_2CF_2CF_2O)_q-$

wherein R'_f is a fluoroalkylene group with 1-4 carbon atoms;

L_0 is chosen between F and CF_3 ;

6) $-(C_3F_6O)_r-OCF_2-R'_f-CF_2O-(C_3F_6O)_r-$

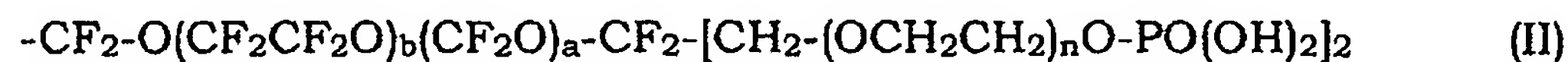
10 wherein in the above formulas:

$-(C_3F_6O)-$ represents units of formula:

$-(CF(CF_3)CF_2O)-$ and/or $-(CF_2-CF(CF_3)O)-$

a , b , b' , q' , r , t are integers, whose sum is such that R_f has values of number average molecular weight M_n lying between about 400 and about 1800, preferably between 500 and 1300.

4. Use according to claim 3, wherein the perfluoropolyether phosphates are perfluoropolyether diphosphates of formula (II):



wherein $n = 1$ or 2 , $b/a = 0.5-3.0$ and a , b and r have the meanings reported in claim 3.

5. A cosmetic and/or dermatological composition for topical use comprising, as active substances, polyphenols in association with a suitable carrier, characterized by containing, as stabilizing agent, an effective amount of at least one perfluoropolyether phosphate.

25 6. A cosmetic and/or dermatological composition according to claim 5, wherein said stabilizing agent is a perfluoropolyether diphosphate according to formula (II) of claim 4.

7. A composition according to claim 6, wherein said at least one perfluoropolyether diphosphate is contained in an amount included between 0.1 and 5.0% by weight of total composition weight.

8. A composition according to claim 7, wherein said at least one perfluoropolyether diphosphate is contained in an amount included

- 16 -

between 0.2 and 1.0% by weight of total composition weight.

9. A composition according to any one of claims 5 to 8, wherein the polyphenol content is included between 0.1% and 5% by weight of total composition weight.

5 10. A composition according to any one of claims 5 to 9, further including vitamin E.

11. A composition according to claim 10, wherein said vitamin E is contained in an amount between 0.5 and 10% by weight of total composition weight.

10 12. A composition according to any one of claims 5 to 11, further including ascorbic acid.

13. A composition according to claim 12, wherein the ascorbic acid is contained in an amount between 0.1 and 10% by weight of total composition weight.

15 14. A composition according to any one of claims 5 to 13, further including at least one compound selected from the group consisting of vitamin A, carotenes, carotenoids, lutein, lycopene and xanthophylls.

15. A composition according to any one of claims 5 to 14, characterized by being in the form of a cream.